

Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, D.C. 20554

ORIGINAL
RECEIVED
 MAR 22 2000
 FEDERAL COMMUNICATIONS COMMISSION
 OFFICE OF THE SECRETARY

In the Matter of)
)
 Implementation of the)
 Local Competition Provisions of the)
 Telecommunications Act of 1996)
)

CC Docket No. 96-98

**COMMENTS OF
 CABLE AND WIRELESS, INC.**

Cable and Wireless, Inc. ("C&W"), by its attorneys, respectfully submits the following support for the petitions for reconsideration filed by AT&T Corp. ("AT&T"), Birch Telecom, Inc. ("Birch"), The Competitive Telecommunications Commission ("CompTel"), MCI WorldCom, Inc. ("MCI WorldCom") and Sprint Corporation ("Sprint") of the *Third Report and Order*, as amended by the *Supplemental Order*, in the above-captioned docket.¹ These petitions request the Commission to raise the four-line cutoff for the exemption from the unbundling requirement for local switching. For the reasons explained below, C&W urges the Commission to raise the four-line cutoff as these petitions request by setting it at the DS-1 interface.

C&W is a preeminent provider of data, Internet, and long distance services with ongoing plans to integrate and upgrade its networks in order to provide a full range of integrated, basic and advanced telecommunications services packages to consumers. As such, C&W is intensely interested in the outcome of this proceeding. C&W currently is focusing on a two-year plan to upgrade, enhance, and expand its network in order to maintain its status as a preeminent provider of a full range of advanced voice and data services. However, despite C&W's ongoing

¹ *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, CC Docket No. 96-98, FCC 99-238 (1999) ("*Third Report and Order*").

No. of Copies rec'd 0+13
 List ABCDE

investments, C&W's ability to maintain and improve its market position will be extremely limited, if not impossible, if local telecommunications opportunities are limited or foreclosed by ILEC noncompliance with the procompetitive, market-opening obligations of the 1996 Act. The *Third Report and Order* goes far towards increasing the opportunities for telecommunications competition. However, the four-line cutoff for the exemption from unbundling of local switching could inadvertently prevent small business and residential users from receiving the benefits created by vigorous competition in the telecommunications marketplace. The four-line cutoff is inconsistent with the impair standard, unsupported by the record, and too low to foster competition as envisioned by the 1996 Act. Therefore, the Commission should replace the four-line cutoff with a DS-1 cutoff, and clarify that once a customer enjoys service from a competitive carrier using a local switching UNE, it will not subsequently lose this service simply because it grows to the point that it meets the exemption criteria.

I. THE COMMISSION SHOULD USE THE DS-1 INTERFACE AS THE CUTOFF FOR EXEMPTION FROM UNBUNDLING OF LOCAL SWITCHING

The Commission should reconsider the four-line cutoff for the exemption from the unbundling requirement for local switching because it ignores a finding of impairment under the 1996 Act in favor of a false assumption that is not supported by any evidence on the record. As the petitions for reconsideration of AT&T,² Birch,³ CompTel, MCI WorldCom and Sprint⁴ demonstrate, the four-line cutoff should be raised because it is irrational and inconsistent with the requirements of the 1996 Act.

The four-line cutoff rule is based on the Commission's attempt to identify the demarcation between the market for medium and large business customers and the mass market,

² See AT&T Petition at 12-19.

³ See Birch Petition at 3-9.

⁴ Sprint Petition at 7-9.

which includes both residential and small business customers. However, the Commission provides no support for choosing four lines as the demarcation point, finding (without citing any record evidence) that this demarcation “reasonably captures the division between the mass market . . . and the medium and large business market.”⁵ C&W agrees with Sprint, CompTel and others that the overwhelming majority of small businesses, and an increasing number of residences, uses more than 3 lines.⁶ As Sprint points out in its petition, a conservative and frequently used definition for “small businesses” includes all businesses that employ fewer than 100 persons.⁷ Businesses with 50-99 employees use an average of 22 phone lines.⁸ This alone demonstrates that the four-line rule is too narrow and contrary to the record evidence.

C&W respectfully submits that the Commission could better foster competition within the small business and residential market by applying the impair standard based on the record evidence in this proceeding rather than by trying to define the mass markets in terms of the average number of lines used. C&W agrees with CompTel and AT&T that any exemption should be based on an analysis of the costs and delays of ordering termination of individual circuits rather than based strictly on the average number of lines used by small businesses. As CompTel explained in its petition, the manual provisioning systems of the ILECs impose excessive costs and delays on competitive carriers that order termination of individual circuits.⁹ These costs and delays become a smaller percentage of the overall costs of service where carriers seek higher capacity end-user interfaces.¹⁰

⁵ *Third Report and Order* at ¶294.

⁶ Sprint Petition at 8.

⁷ *Id.*

⁸ *Id.*

⁹ CompTel Petition at 4.

¹⁰ *Id.*

C&W agrees with AT&T that the four-line rule, because it is based on an arbitrary definition of the mass market, does not reflect the actual economic and operational considerations that new entrants face when they assess the viability of aggregating multiple loops at a customers location.¹¹ C&W also agrees with CompTel that the four-line rule ignores the reality of serving today's *small* business and residential market.¹² As both AT&T and Sprint demonstrate in their petitions, more than 20 percent of all business customers in density Zone 1 locations have four or more lines.¹³ Because four lines is well below the point at which competitive carriers can serve customers without experiencing the costs and delays imposed by the standard, manual hot-cut provisioning of analog loops, customers with four or more lines are the same as customers with three or less lines from an economic and operational standpoint.¹⁴ In sum, the four-line rule does not reflect the economic reality competitive carriers face when deciding whether to aggregate voice grade loops onto a higher capacity facility.¹⁵

C&W agrees with the majority of petitioners addressing this issue, including AT&T, Birch CompTel and MCI WorldCom, that many competitive carriers use self-supplied switching capacity to provide service at the DS-1 interface level and above. Accordingly, the DS-1 interface level is the most rational cutoff for the Commission's exemption from unbundled local switching, because this is the point at which competitive carriers can avoid the cumbersome individual loop manual hot-cut provisioning processes, which the Commission has found impair the ability of carriers to compete without the unbundled local switching UNE.¹⁶

¹¹ AT&T Petition at 13.

¹² *See, e.g.*, CompTel Petition at 4.

¹³ AT&T Petition at 17.

¹⁴ *Id.* at 16.

¹⁵ *Id.* at 15.

¹⁶ *Id.* at 16.

AT&T asks the Commission to limit the exemption to customers with eight lines or more because it believes that newer DSL technology is becoming available that may ultimately permit competitive carriers efficiently to aggregate loops for customers with as few as eight lines¹⁷ Although AT&T may be correct that, as rates become more cost-based, customers will begin using a DS-1 interface when they have fewer than 24 lines, C&W agrees with CompTel and MCI-WorldCom that the Commission should use the DS-1 interface itself, rather than a specific line count, as the exemption limit. The MCI WorldCom petition demonstrates that the DS-1 interface is both easier to administer than a rule based on line counts and more closely tied to the impair standard, as required by the 1996 Act.¹⁸

C&W also supports AT&T's request that the Commission clarify the rules governing application of the exemption. Specifically, the Commission should clarify that, for exemption purposes, (1) if there are multiple end users at a single physical location, each customer must be treated as a separate "end user," (2) if a single business customer has multiple physical location in an area, each location must be treated as a separate "end user," and (3) lines employing DSL technology where no connection to the circuit switched network is likely (which is true for all DSL technologies except ADSL) must not be counted towards the exemption.¹⁹

Finally, C&W agrees with AT&T and Birch that customers who receive service from carriers using unbundled local switching should continue to receive unbundled local switching if they subsequently outgrow the exemption.²⁰ Customers should never be forced to forfeit pre-existing service arrangements using unbundled local switching simply because their telecommunication needs have increased. Unless the Commission explicitly adopts this

¹⁷ *Id.* at 18.

¹⁸ MCI WorldCom Petition at 22.

¹⁹ AT&T Petition at 17-18.

²⁰ *See, e.g., id.* at 18; Birch Petition at 9.


clarification, competitive carriers and their customers could find themselves disqualified from unbundled local switching for any of their lines, and even experience service disruptions when the ILEC withdraws unbundled local switching.²¹

II. CONCLUSION

For the foregoing reasons, the Commission should deny the petition for reconsideration filed by Bell Atlantic and grant the petitions for reconsideration filed by AT&T, Birch, CompTel, MCI WorldCom and Sprint by replacing the four-line cutoff for exemption from the local switching unbundling requirement with a cutoff at the DS-1 interface.

Respectfully submitted,

CABLE AND WIRELESS, INC.

By: 

Danny E. Adams
Todd D. Daubert
KELLEY DRYE & WARREN LLP
1200 19th Street, N.W., Suite 500
Washington, D.C. 20036
(202) 955-9600

Rachel J. Rothstein
Brent M. Olson
CABLE & WIRELESS, INC.
8219 Leesburg Pike
Vienna, VA 22182
(703) 760-3865

Its Attorneys

March 22, 2000

²¹ AT&T Petition at 19.

CERTIFICATE OF SERVICE

I, Tracey Sorenson, hereby certify that on this 22th day of March, 2000, I caused a true and correct copy of the foregoing **“Comments of Cable And Wireless, Inc.”** to be served, via first-class mail, postage prepaid, upon the following:

Magalie R. Salas (+12 copies)
Federal Communications Commission
The Portals
445 12th Street, SW
Washington, DC 20554

Janice M. Myles
Common Carrier Bureau
Federal Communications Commission
445 12th Street, SW
Room 5-C327
Washington, DC 20554

Chairman William E. Kennard
Federal Communications Commission
445 12th Street, SW
Room 8B-201
Washington, DC 20554

Commissioner Harold Furchtgott-Roth
Federal Communications Commission
445 12th Street, SW
Room 8A-302
Washington, DC 20554

Commissioner Gloria Tristani
Federal Communications Commission
445 12th Street, SW
Room 8C-302
Washington, DC 20554

Commissioner Michael Powell
Federal Communications Commission
445 12th Street, SW
Room 8A-204
Washington, DC 20554

Commissioner Susan Ness
Federal Communications Commission
445 12th Street, SW
Room 8B-115
Washington, DC 20554

ITS, Inc.
1231 20th Street, NW
Washington, DC 20036

James S. Blaszak
Colleen Boothby
Andrew Brown
Levine, Blaszak, Block & Boothby
2001 L Street, NW
Suite 900
Washington, DC 20036
*Ad Hoc Telecommunications Users
Committee*

Lee Selwyn
Economics & Technology
One Washington Mall
Boston, MA 02108-2617
*Consultants for Ad Hoc Telecommunications
Users*

Ruth Milkman
The Lawler Group
1909 K Street
Suite 820
Washington, DC 20006
*Counsel for Allegiance Telecom, Inc. and
Northpoint Communications*

Robert W. McCausland
Allegiance Telecom
1950 Stemmons Freeway
Suite 3026
Dallas, TX 75207-3118

Mary C. Albert
Allegiance Telecom
1100 15th Street, NW
Suite 200
Washington, DC 20005

John T. Lenahan
Christopher M. Heimann
Gary L. Phillips
Ameritech Corporation
1401 H Street, NW
Suite 1020
Washington, DC 20005

Larry A. Peck
Michael S. Pabian
Ameritech Corporation
1401 H Street, NW
Suite 1020
Washington, DC 20005

Jonathan Askin
Association for Local Telecommunications
Services
888 17th Street, NW
Washington, DC 20006

James G. Pachulski
Bell Atlantic 1320 North Court House Road
8th Floor
Arlington, VA 22201

M. Robert Sutherland
Jonathan B. Banks
BellSouth Corporation
1155 Peachtree Street, NE
Suite 1800
Atlanta, GA 30309-3610

Rachel J. Rothstein
Brent M. Olson
Cable & Wireless
8219 Leesburg Pike
Vienna, VA 22182

Peter Arth, Jr.
Lionel Wilson
Ellen S. Levine
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Karlyn D. Stanley
Cole, Raywid & Braverman
1919 Pennsylvania Avenue, NW
Suite 200
Washington, DC 20006
Counsel for Centennial Cellular Corp.

Lourdes Lucas
Centennial Cellular Corp.
1305 Campus Parkway
Neptune, NJ 07753

Mark J. Burzych
Foster, Swift, Collins & Smith
313 South Washington Square
Lansing, MI 48933-2193

Susan W. Smith
Centurytel Wireless
3505 Summerhill Road
No. 4 Summer Place
Texarkana, TX 75501

Kenneth E. Hardman
Moir & Hardman
1828 L Street, NW
Suite 901
*Counsel for Trillium Cellular Corp and
Columbia Telecommunications.*

Dana Frix
Patrick J. Donovan
Swidler, Berlin, Shereff & Friedman
3000 K Street, NW
Suite 300
Washington, DC 20007
*Counsel for Choice One Communications,
Network Plus, GST Telecom, CTSI and
Hyperion Telecomms.*

Ronald Binz
Debra Berlyn
Competition Policy Institute
1156 15th Street, NW
Suite 520
Washington, DC 20005

Connecticut Dept. of Public Utility Control
10 Franklin Square
New Britain, CT 06051

Eric J. Branfman
Michael R. Romano
Swidler, Berlin, Shereff & Friedman
3000 K Street, NW
Suite 300
Washington, DC 20007
Counsel for CoreComm Limited

Thomas M. Koutsky
James D. Earl
Covad Communications Company
700 13th Street, NW
Suite 950
Washington, DC 20005

Laura H. Phillips
J.G. Harrington
Barbara S. Esbin
Dow, Lohnes & Albertson
1200 New Hampshire Avenue, NW
Suite 800
Washington, DC 20036
Counsel for Cox Communications

Cynthia B. Miller
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Richard Metzger
Focal Communications Corporation
1120 Vermont Avenue, NW
Washington, DC 20005

Geroge N. Barclay
Michael J. Ettner
General Services Administration
1800 F Street, NW
Room 4002
Washington, DC 20405

Snavelly King Majoros O'Connor & Lee
1220 L Street, NW
Suite 410
Washington, DC 20005
*Economic Consultants for General Services
Administration*

William P. Barr
M. Edward Whelan
GTE Service Corporation
1850 M Street, NW
Suite 1200
Washington, DC 20026

Ward W. Wueste, Jr.
Thomas R. Parker
GTE Service Corporation
1255 Corporate Drive
Irving, TX 75038

Steven G. Bradbury
Paul T. Cappuccio
Patrick F. Philbin
John P. Frantz
Kirkland & Ellis
655 15th Street, NW
Washington, DC 20005
Counsel for GTE Service Corporation

Jeffrey S. Linder
Suzanne Yelen
Wiley, Rein & Fielding
1717 K Street, NW
Washington, DC 20006
Counsel for GTE Service Corporation

Myra Karegianes
Illinois Commerce Commission
160 North LaSalle
Suite C-800
Chicago, IL 60601

Fiona J. Branton
Information Technology Industry Council
1250 Eye Street, NW
Suite 200
Washington, DC 20005

Colleen Boothby
Andrew M. Brown
Levine, Blaszak, Blcok & Boothby
2001 L Street, NW
Suite 900
Washington, DC 20036
Counsel for InformationTechnology Industry Council

Diane C. Munns
Iowa utilities Board
350 Maple Street
Des Moines, IA 50319

Michael J. Travieso
Theresa V. Czarski
Office of People's Counsel
6 St. Paul Street
Suite 2102
Baltimore, MD 21202

Philip F. McClelland
Joel H. Cheskis
Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923

David Bergmann
Ohio Consumer's Counsel
77 South High Street
15th Floor
Columbus, OH 43266-0550

William Vallee, Jr.
Connecticut Office of Consumer Counsel
10 Franklin Square
New Britain, CT 06501-2605

William L. Willis
Deborah T. Eversole
Amy E. Dougherty
Kentucky Public Service Commission
730 Schenkel Lane
PO Box 615
Frankfort, KY 40602

Patrick J. Donovan
James N. Moskowitz
Swidler, Berlin, Shereff & Friedman
3000 K Street, NW
Suite 300
Washington, DC 20007
Counsel for KMC Telecom

William P. Hunt III
Level 3 Communications
1450 Infinite Drive
Louisville, CO 80027

Russell M. Blau
Tamar E. Finn
Swidler, Berlin, Shereff & Friedman
3000 K Street, NW
Suite 300
Washington, DC 20007
Counsel for 3 Level Communications

Glenn B. Manishin
Blumenfeld & Cohen
1615 M Street, NW
Suite 700
Washington, DC 20036
Counsel for Low Tech Designs

James M. Tennant
Low Tech Designs
1204 Saville Street
Georgetown, SC 29440

Lisa B. Smith
Charles Goldfarb
MCI WorldCom
1801 Pennsylvania Avenue, NW
Washington, DC 20006

Donald B. Verrilli, Jr.
Mark D. Schneider
Maureen F. Del Duca
Jenner & Block
601 13th Street, NW
Washington, DC 20005
Counsel for MCI WorldCom

Douglas H. Hsiao
Thomas D. Amrine
Jeffrey I. Ryen
Jenner & Block
601 13th Street, NW
Washington, DC 20005
Counsel for MCI WorldCom

David R. Conn
McLeod USA Telecommunications
McLead USA Technology Park
6400 C Street, SW
Cedar Rapids, IA 52406-3177

Susan M. Eid
Tina S. Pyle
Richard A. Karre
Mediaone Group
1919 Pennsylvania Avenue, NW
Suite 610
Washington, DC 20006

Lonn Beedy
Metro One Telecommunications
8405 SW Nimbus Avenue
Beaverton, OR 97008-7159

Michelle W. Cohen
Paul, Hastings, Janofsky & Walker
1299 Pennsylvania Avenue, NW
10th Floor
Washington, DC 20004
Counsel for Metro One Telecommunications

Kent F. Heyman
Scott A. Sarem
Richard E. Heatter
MGC Communications
3301 N. Buffalo Drive
Las Vegas, NV 89129

Charles D. Gray
James B. Ramsay
National Association of Regulatory Utility
Commissioners
1100 Pennsylvania Avenue, NW
Suite 603
PO Box 684
Washington, DC 20044

Rodney L. Joyce
J. Thomas Nolan
Shook, Hardy & Bacon
600 14th Street, NW
Suite 800
Washington, DC 20005-2004

Scott Sawyer
New England Voice & Data
222 Richmond Street
Suite 206
Providence, RI 02903

Willkie, Farr & Gallagher
3 Lafayette Center
1155 21st Street, NW
Washington, DC 20036
Counsel for New England Voice & Data

Lawrence G. Malone
New York State Department of Public
Service
3 Empire State Plaza
Albany, NY 12223

Steven Gorosh
Kevin Cameron
Northpoint Communications
222 Sutter Street
Suite 700
San Francisco, CA 94108

Steven T. Nourse
Public Utilities Commission of Ohio
180 E. Broad Street
7th Floor
Columbus, OH 43215

W. Kenneth Ferree
Goldberg, Godles, Wiener & Wright
1229 19th Street, NW
Washington, DC 20036
Counsel for OpTel

Michael E. Katzenstein
OpTel, Inc.
1111 W. Mockingbird Lane
Dallas, TX 75247

Ron Eachus
Joan H. Smith
Roger Hamilton
Oregon Public Utility Commission
550 Capitor Street, NE
Salem, OR 97310-1380

Walter Steimel, Jr.
Marjorie K. Conner
Edwin G. Kichline
Hunton & Williams
1900 K Street, NW
Washington, DC 20006
Counsel for Pilgrim Telephone

Randall B. Lowe
Julie A. Kaminski
Renee R. Crittendon
J. Todd Metcalf
Piper & Marbury
1200 19th Street, NW
Suite 700
Washington, DC 20036
Counsel for Prism Communication Service

Genevieve Morelli
Paul F. Gallant
Qwest Communications
4250 North Fairfax Drive
Arlington, VA 22203

Linda L. Oliver
Jennifer A. Purvis
Yaron Dori
Hogan & Hartson
555 13th Street, NW
Washington, DC 20004
*Counsel for Qwest Communications
Corporation*

Joseph A. Kahl
RCN Telecom Services
105 Carnegie Center
Princeton, NJ 08540

Andrew D. Lipman
James N. Moskowitz
Swidler, Berlin, Shereff & Friedman
3000 K Street, NW
Suite 300
Washington, DC 20007
Counsel for RCN Telecom Services

Glenn B. Manishin
Elise P. Kiely
Frank V. Paganelli
Lisa N. Anderson
Blumenfeld & Cohen
1615 M Street, NW
Suite 700
Washington, DC 20036
Counsel for Rhythms NetConnections

Margot Smiley Humphrey
Koteen & Naftalin
1150 Connecticut Avenue, NW
Suite 1000
Washington, DC 20036
Counsel for NRTA

L. Marie Guillory
Jill Canfield
NTCA
4121 Wilson Boulevard
10th Floor
Arlington, VA 22203

Kathleen A. Kaercher
Stuart Polikoff
OPASTCO
21 Dupont Circle, NW
Suite 700
Washington, DC 20036

Robert M. Lynch
Roger K. Toppins
Michael J. Zpevak
Kathleen E. Palter
SBC Communications
One Bell Plaza
Room 3703
Dallas, TX 75202

Michael K. Kellogg
Rachel E. Selinfreund
Kellogg, Huber, Hansen, Todd & Evans
1301 K Street, NW
Suite 1000 West
Washington, DC 20005
Counsel for SBC Communications

Leon M. Kestenbaum
Jay C. Keithley
H. Richard Juhnke
Sprint Corporation
1850 M Street, NW
11th Floor
Washington, DC 20036

Kirsten M. Pehrsson
Strategic policy Research
7979 Old Georgetown Road
Suite 700
Bethesda, MD 20814

Charles C. Hunter
Catherine M. Hannan
Hunter Communications Law Group
1620 I Street, NW
Suite 701
Washington, DC 20006
Counsel for Telecommunications Resellers Association

Laurence E. Harris
David S. Turetsky
Terri B. Natoli
Carolyn K. Stup
Teligent, Inc.
8065 Leesburg Pike
Suite 400
Vienna, VA 22182

Philip L. Verveer
Gunnar D. Halley
Willkie, Farr & Gallagher
3 Lafayette Centre
1155 21st Street, NW
Washington, DC 20036
Counsel for Teligent

Steven P. Goldman
Deborah M. Barrett
Teltrust
6322 South 3000 East
Salt Lake City, UT 84121

Leonard J. Kennedy
Loretta J. Garcia
Dow, Lohnes & Albertson
1200 New Hampshire Avenue, NW
Washington, DC 20036
Counsel for Teltrust, Inc.

Pat Wood III
Judy Walsh
Brett A. Perlman
Public Utility Commission of Texas
1701 N. Congress Avenue
PO Box 13326
Austin, TX 78711-3326

David C. Farnsworth
Vermont Public Service Board
Drawer 20
Montpelier, VT 05620-2701

Lowell Feldman
Bill Magness
Waller Creek Communications
1801 N. Lamar, Suite M
Austin, TX 78701

Robert Berger
Russell Merbeth
Barry Ohlson
Winstar Communications
1146 19th Street, NW
Suite 200
Washington, DC 20036

Russell M. Blau
William L. Fishman
Swidler, Berlin, Shereff & Friedman
3000 K Street, NW
Suite 300
Washington, DC 20007
Counsel for Winstar Communications

Lawrence E. Sarjeant
Linda Kent
Keith Townsend
John W. Hunter
Julie E. Rones
United States Telephone Association
1401 H Street, NW, Suite 600
Washington, DC 20005

William T. Lake
William R. Richardson, Jr.
Samir Jain
David M. Sohn
Todd Zubler
Wilmer, Cutler & Pickering
2445 M Street, NW
Washington, DC 20037
Counsel for US West

Robert B. McKenna
US West, Inc.
1020 19th Street, NW
Washington, DC 20036

Douglas E. Hart
Frost & Jacobs
2500 PNC Center
201 East 5th Street
Cincinnati, OH 45202
Counsel for Cincinnati Bell Telephone Co.

Gerard Salemme
Daniel Gonzalez
Nextlink Communications
1730 Rhode Island Avenue, NW
Suite 1000
Washington, DC 20036

Marilyn Showalter
Richard Hemstad
William R. Gillis
Washington Utilities & Transportation
Commission
1300 South Evergreen Park Drive, SW
Olympia, WA 98504

Daniel M. Waggoner
Robert S. Tanner
Davis, Wright & Tremaine
1155 Connecticut Avenue, NW
Suite 700
Washington, DC 20036
Counsel for Nextlink Communications

A handwritten signature in black ink, consisting of a stylized 'J' followed by a long horizontal stroke, positioned above a solid horizontal line.